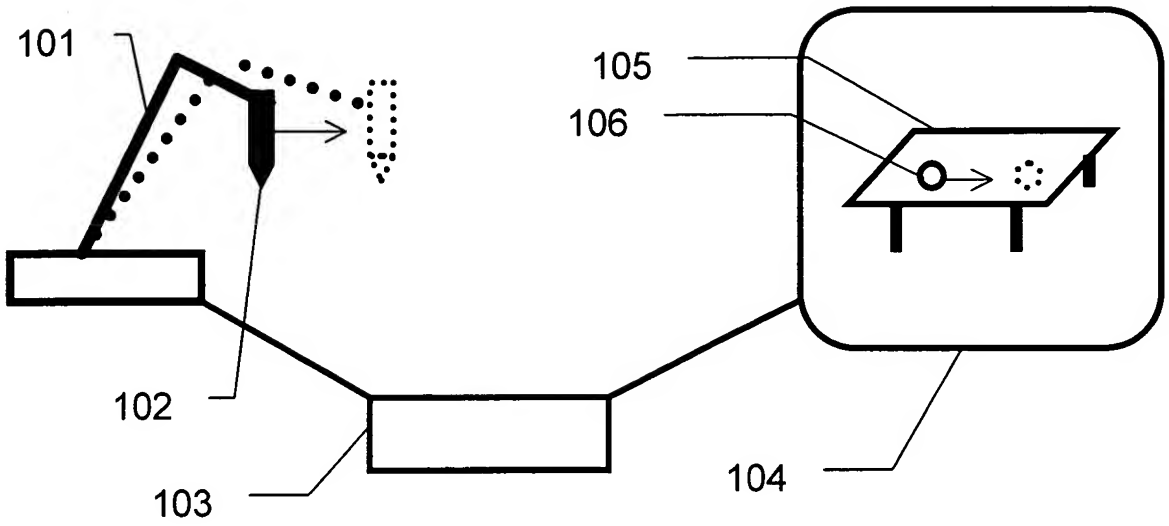

Figure 1

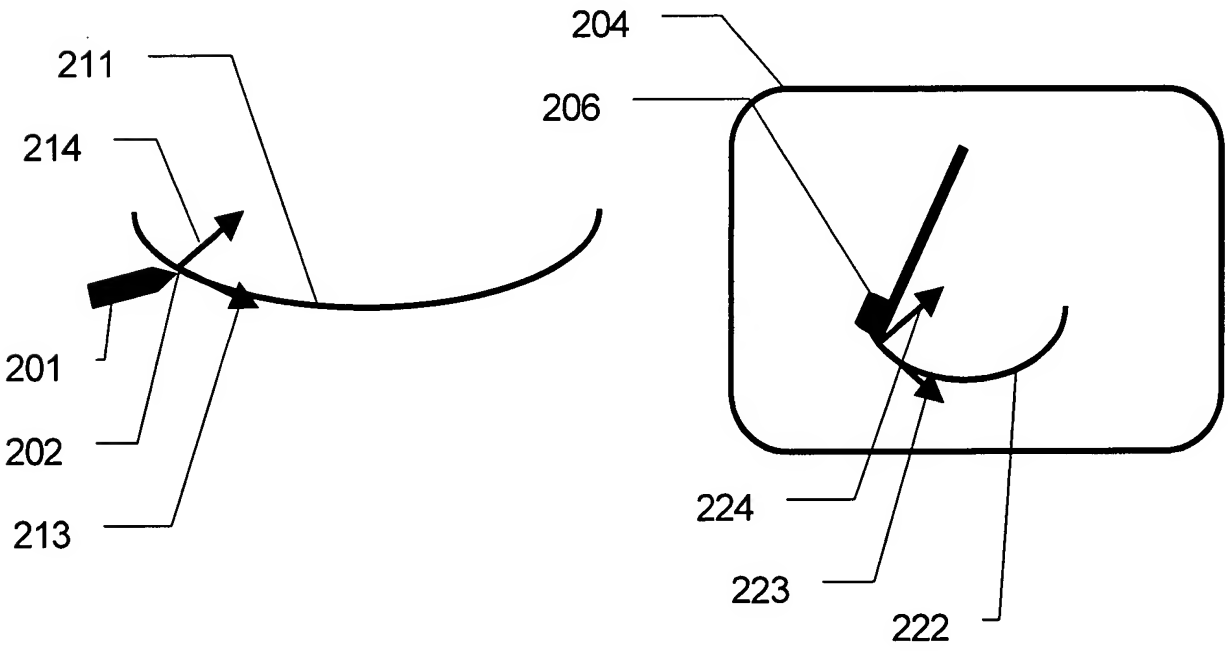

Figure 2

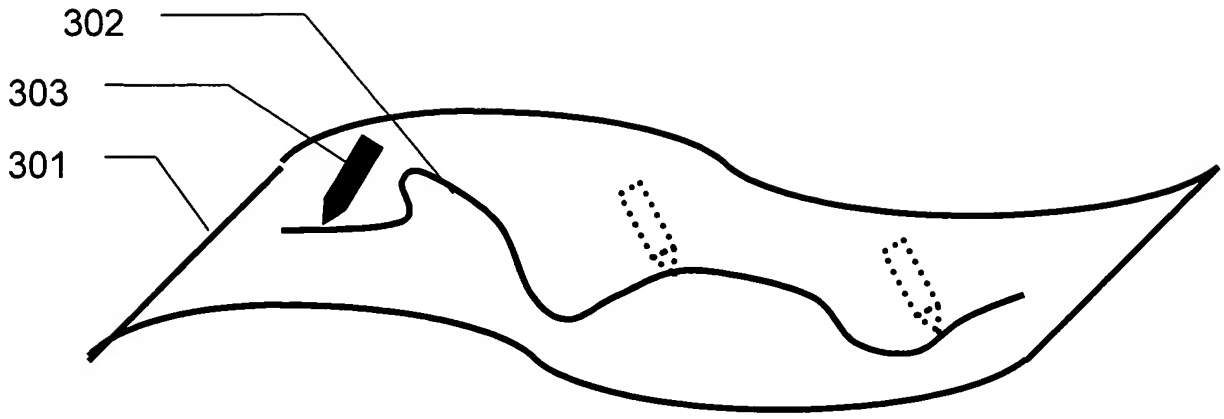

Figure 3

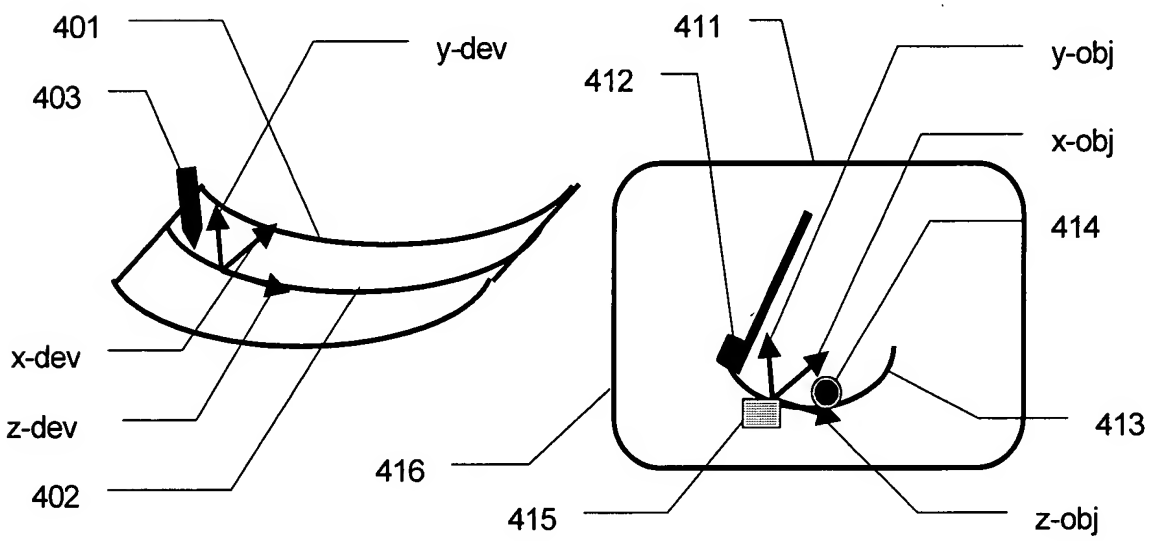

Figure 4

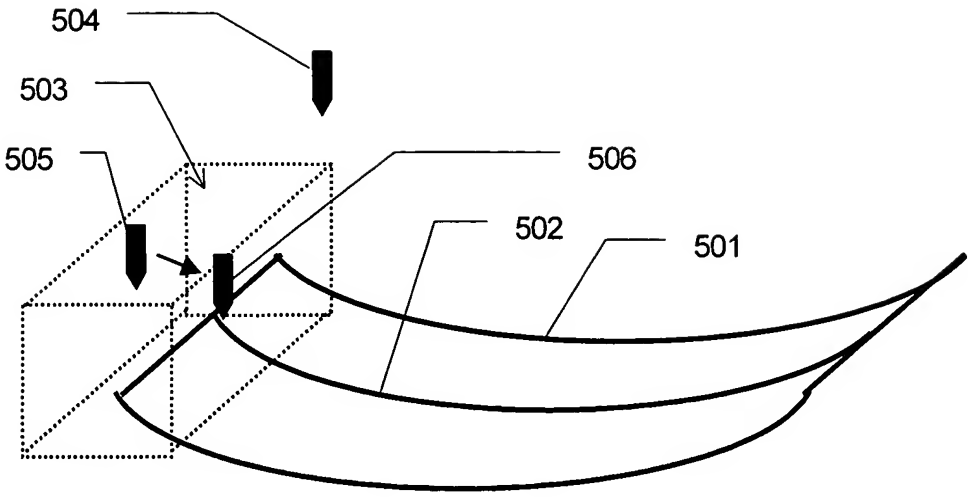

Figure 5

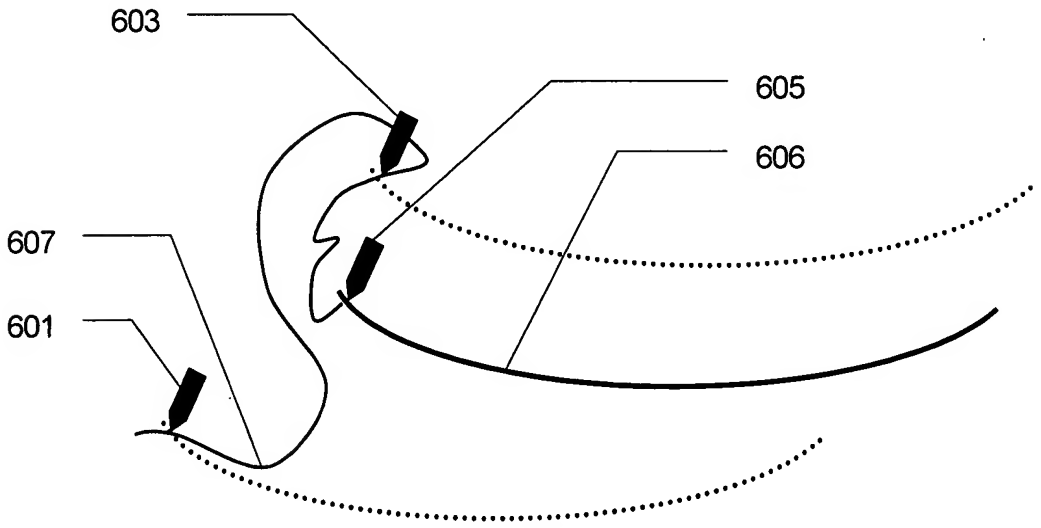

Figure 6

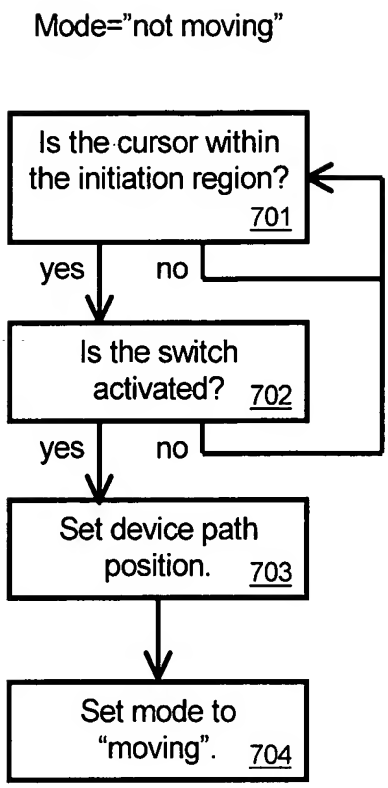
Mode="not moving"
Is the cursor within the initiation region? 701
yes
no
Is the switch activated? 702
yes
no
Set device path position. 703
Set mode to "moving". 704

Figure 7

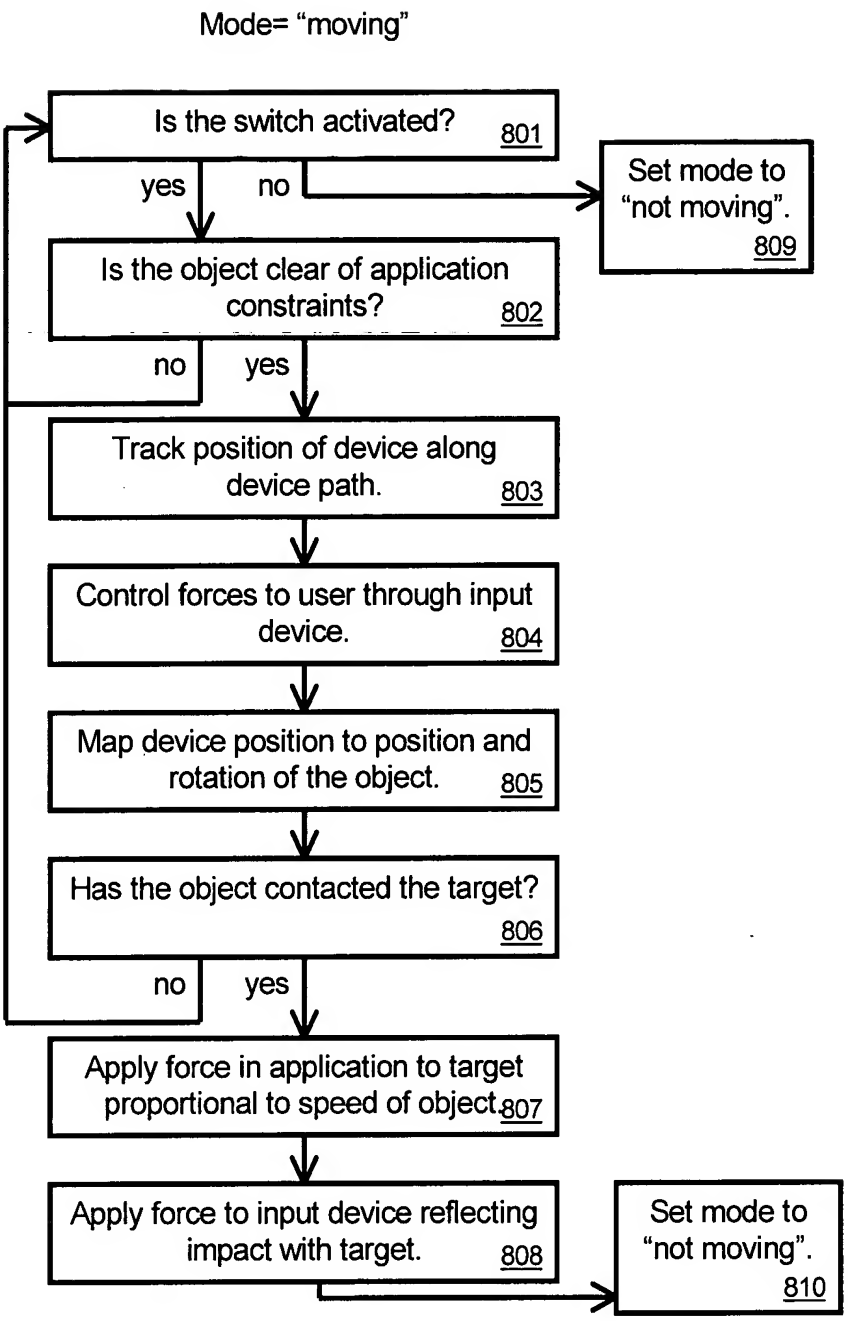
Mode= "moving"
Is the switch activated? 801
yes
no
Set mode to "not moving". 809
Is the object clear of application constraints? 802
no
yes
Track position of device along device path. 803
Control forces to user through input device. 804
Map device position to position and rotation of the object. 805
Has the object contacted the target? 806
no
yes
Apply force in application to target proportional to speed of object. 807
Apply force to input device reflecting impact with target. 808
Set mode to "not moving". 810

Figure 8

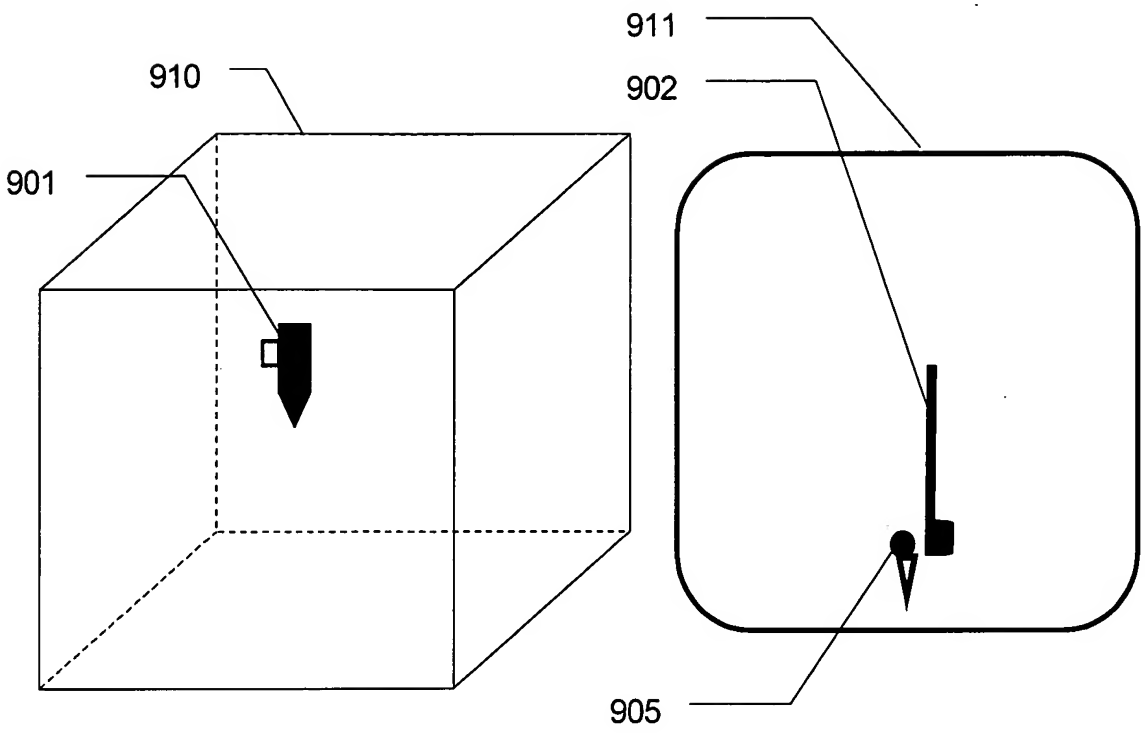

Figure 9a

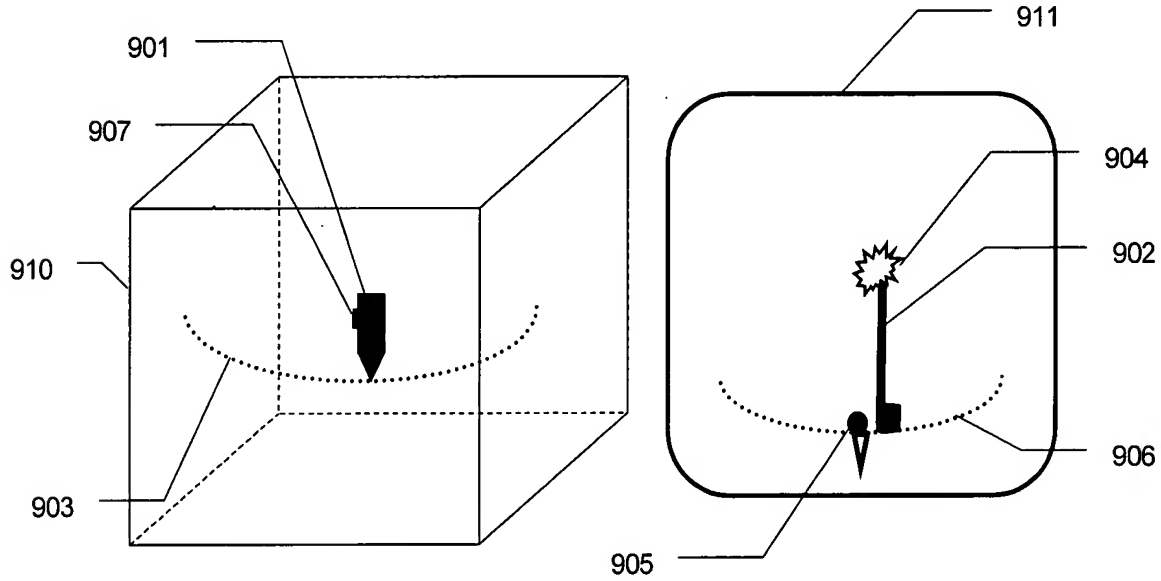

Figure 9b

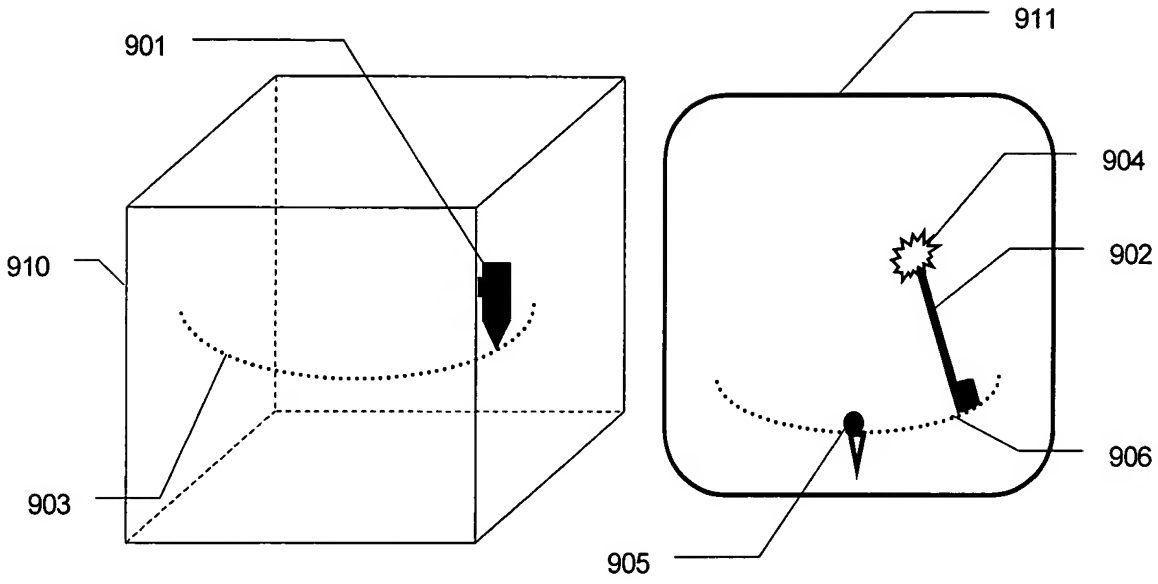

Figure 9c

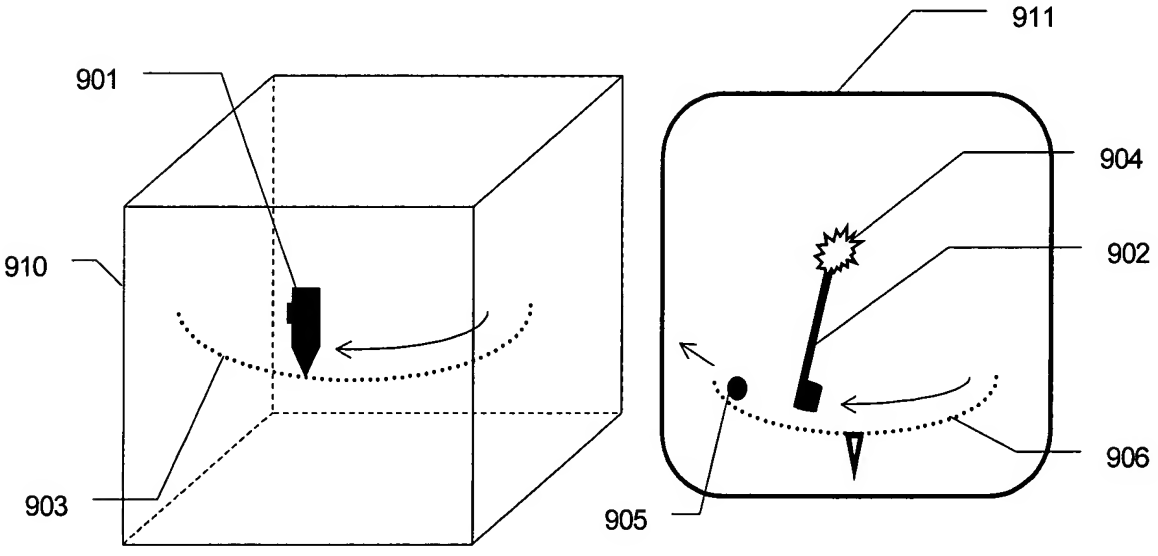

Figure 9d

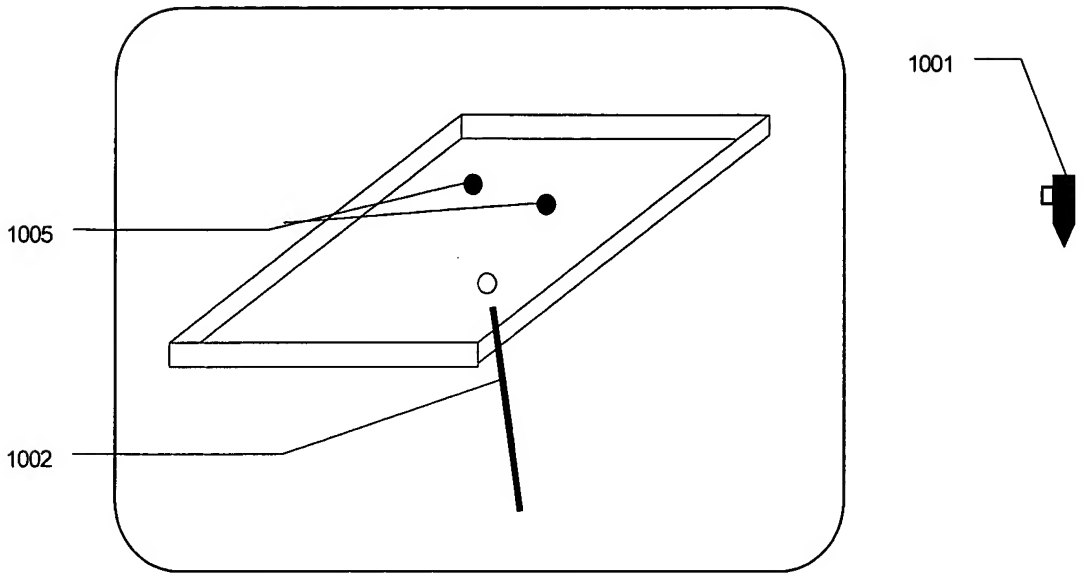

Figure 10a

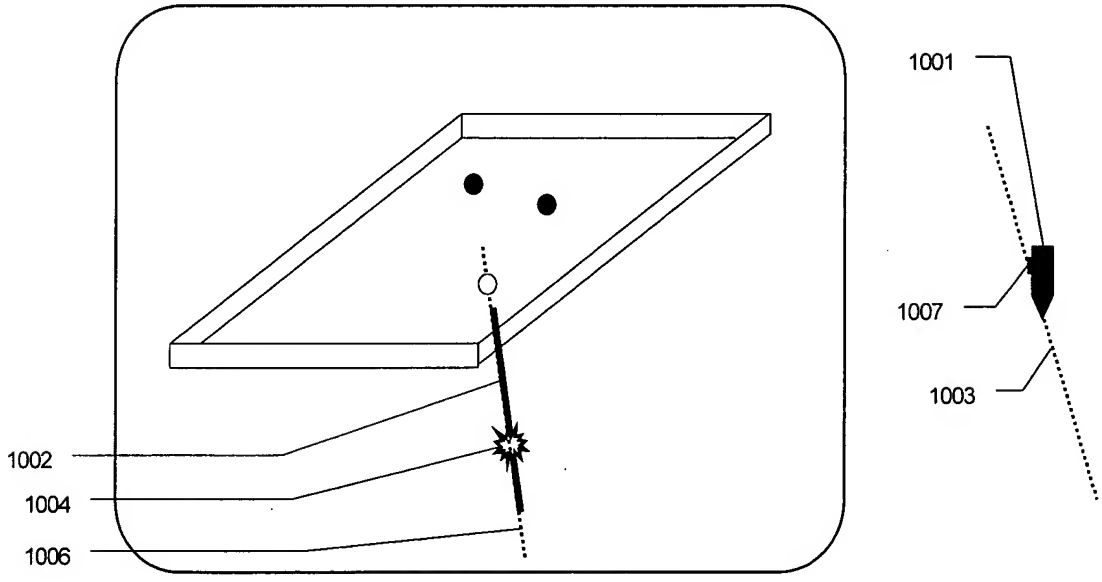

Figure 10b

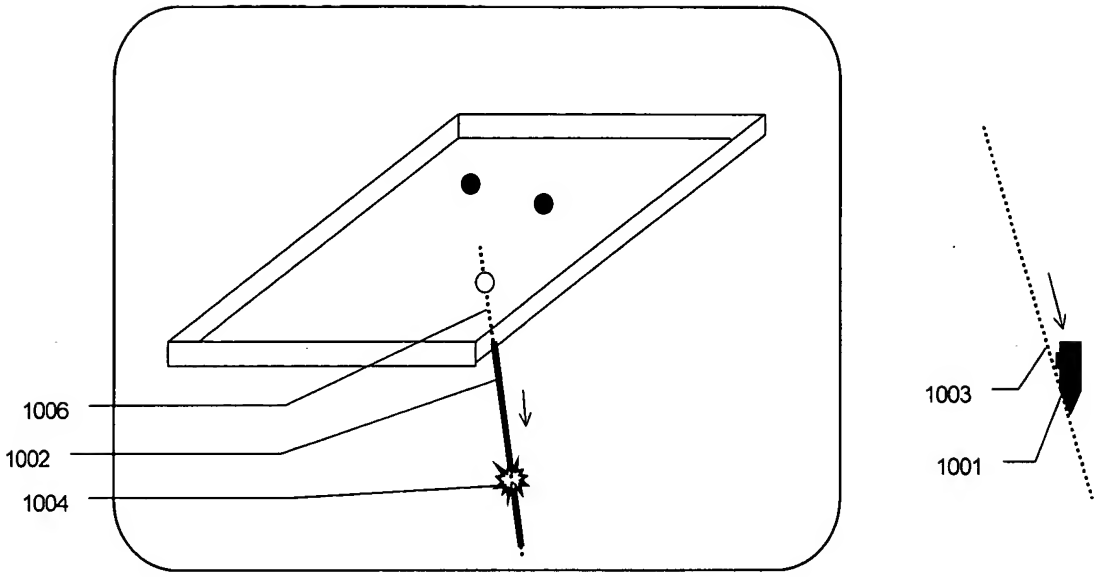

Figure 10c

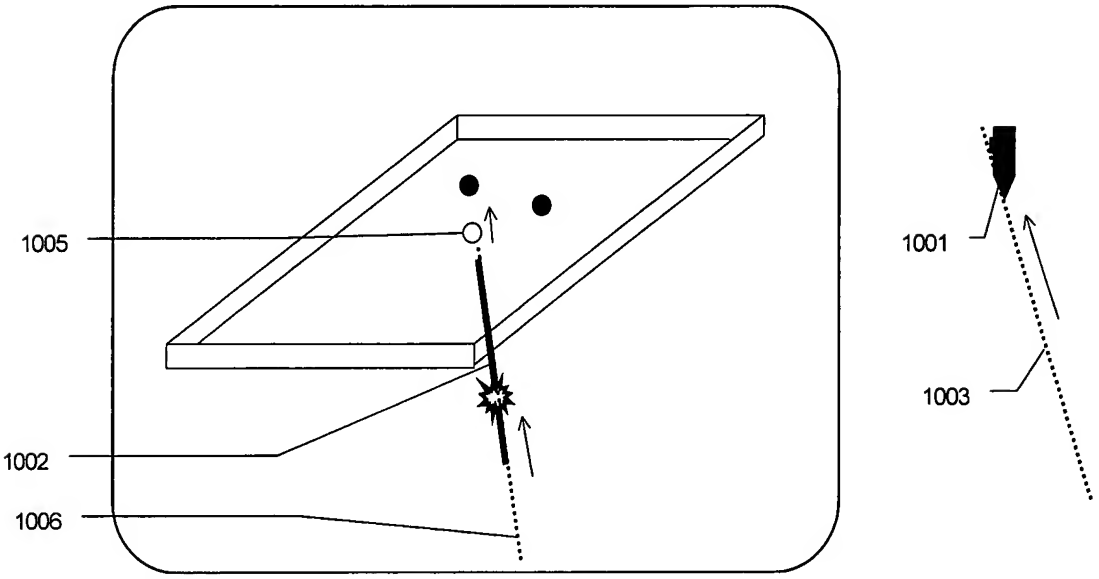

Figure 10d